

TABLE 1--PETROGRAPHIC DATA ON GRANITIC ROCKS OF THE EAGLE QUADRANGLE, ALASKA

[The following abbreviations have been used: pheno(s) = phenocryst(s), chem = major element chemical analysis (rapid rock or standard), spec = 30-element semiquantitative spectrographic analysis, Alter = alteration; mineral abbreviations, all = allanite, ap = apatite, bio = biotite, carb = carbonate, chl = chlorite, cpx = clinopyroxene, czs = clinozoisite, ep = epidote, hbl = hornblende, K-spar = potassium feldspar, musc = muscovite, op = opaque, plag = plagioclase, ser = sericite, sph = sphene, tour = tourmaline, zir = zircon.]

Field No.	Quad.	Pluton no.	Rock name	Texture	Grain size	Primary minerals in percent					Accessory minerals	(degree: minerals)	Spec analysis	Chem analysis	Rapid rock Standard	Remarks		
						Biotite	Hornblende	K-spar	Plagioclase	Quartz								
68ACs297	D-3	1	Monzonite	Slightly porphyritic	Medium, hornblende phenos 5-7 mm	4	0	25	28 Microcline	35	3	Sph, op, topaz	Slight: small amount of chl from hbl, plag to ap	X				
68ACs366	D-2	2	Quartz monzodiorite	Hypidiomorphic-granular	Medium	4	0	22	12	35	13	Sph, all, ap, op, carb (veinlets)	Strong: chl, ser (6-9%), ep (5%)					
71AFr254	C-2	3-A	----Do----	----do----	--do--	*	14	1	9	49	28	All, ep, op, zir	Moderate: chl, ser					
71AFr343	C-2	3-A	----Do----	----do----	Medium to coarse	(5-10)	(<5)	(15)	(45)	(30)		All, ep, sph, zir, op	Moderate: bio to chl					
71AFr341	C-2	3-A	Quartz diorite	----do----	Medium	(10) Now chlorite	0	(15)	(40)	(35)		All, ep, op	Strong: bio to chl	X				
71AFr2179	C-2	3-A	Granodiorite	----do----	--do--	*	10	13	16	39	23	Ap, op, zir	Slight: bio to chl, ep	X				
71AFr348	C-2	3-B	Quartz diorite	Porphyritic	--do--	(40% of phenos)	(20% of phenos)	(Groundmass)	(20% of phenos)	(20% of phenos)		Op	Strong: ep, chl, op	X			Gray rubble. May be a phase-of intrusion or a later intrusion. Abundant rock type locally. Groundmass about 60%, phenocrysts about 40%.	
71AWr161	C-2	3-B	Tonalite	Hypidiomorphic-granular	--do--		(7)	(3)	(5)	(50)	(35)	Zir.	Slight: bio to chl				Thin section contains fine-grained mafic clot.	
68AFr2038	D-2	3-B	Granodiorite	----do----	--do--	*	13	2	14	48	23	Ap, op,	Slight: bio to chl, ep	X				
71AFr359	D-3	3-C	Quartz monzodiorite	----do----	--do--	*	12	9	20	41	9						No thin section.	
71AFr364	D-3	3-C	Quartz diorite	----do----	--do--	(2)	(8) Brown	(5)	(70)	(10)	Ap, zir, op	Slight: chl, ep	X					
68AFr332	D-2	3-C	Granodiorite	----do----	--do--	(9)	(6)	(20)	(40)	(25)	Op, zir	Slight: chl						
71AFr2024	D-4	3-D	Granite	----do----	--do--	*	6	0	28	31	34	Tour, all	Slight: clays, ser, chl	X				
71AFr2025	D-4	3-D	Granodiorite	----do----	--do--	*	10	4	16	39	30	Ap, zir	-----do-----	X			K/Ar age 92.8±2.8 m.y. on biotite (D. L. Turner, oral commun., 1974).	
71AFr185	D-4	3-D	Granite	----do----	--do--	*	11	3	26	30	30	Ep, carb (veinlets) ser	X				For background spec. see 71AFr183.	
71AFr793	D-4	3-D	----Do----	----do----	--do--	*	7	0	33	27	32	Sph, op, ap, zir	Slight: minor chl, clays	X				
71AWr90	D-4	3-D	----Do----	Medium, K-spar slightly larger	Medium, K-spar slightly larger	△	9	tr	27	29	35	All, op, ap, zir, hbl	Slight: bio to chl, minor ser, ep, musc	X				
71AWr86A	D-4	3-D	--Do--	Slightly porphyritic	K-spar phenos to 6x9 mm; qtz phenos to 4x5 mm; medium groundmass	△	3		36	33	26	Zir, ap, op	Moderate: ser, musc, ~15% bio to chl, ep					
70AWr67b	D-5	3-D	--Do--	----do----	K-spar to 5x10 mm; medium groundmass	*	6	<1	37	23	33	----do----	Moderate: ser, musc, ~10% bio to chl					
70AFr322	D-5	3-D	--Do--	Hypidiomorphic granular	Medium	*	10	6	20 Poikilitic	36	28 Poikilitic	----do----	Slight: minor chl, ser	X				
71AFr99	D-4	3-D	Granodiorite	----do----	--do--	(20)	(2)	(15) Poikilitic	(30)	(30)	Zir, ap, op, cpx	Slight: ser, bio to chl						
71AFr800	C-4	3-D	Granite			*	9	0	35	33	23	Zir, (haloes in bio), topaz?, ep, ap	Slight: bio to chl, minor ser	X				
69AFr702	C-4	3-D	Granodiorite	Slightly porphyritic	Medium (groundmass): K-spar phenos 14x8 mm	*	13	<1	13	45	30						Metamorphic inclusion of plag, bio, K-spar; iron stain. No thin section.	
69AFr689	C-3	3-D	----Do----	Hypidiomorphic granular	Medium	*	12	<1	8	49	29	Zir, ap, op, carb (veinlets)	Slight to moderate: chl, ser	X			Slightly foliated (micas and qtz alined).	
69AFr674	C-4	3-D	----Do----	Allotriomorphic	Fine to medium	*	9	0	17	40	33	Musc, zir, (haloes in bio), op, garnet	Slight: ser	X	X			
71AWr80	D-5	3-E	Granite	Porphyritic	K-spar + qtz phenos to 1x1 cm; groundmass medium	*	9	4	28	32	27	Zir, ap, sph	Strong: bio + clays 10% bio gone to chl and clay, some ep	X				
70AFr430	C-6	3-E	--Do--	----do----	K-spar phenos up to 10x27 mm; groundmass medium	*	8	<1	36	27	28	Sph, ap, zir, op, all, carb?	Moderate: ser, bio to chl					
71AWr70	D-5	3-E	Granodiorite	Mildly metamorphic texture superimposed on hypidiomorphic-granular	Medium with coarse qtz bands	(15)	0	(5)	(35)	(45)	Cpx, hbl, ap, zir, op	Slight: ser, bio to chl						
70AFr468	D-5	3-E	----Do----	Hypidiomorphic-granular (slightly porphyritic)	Medium (K-spar to 6x6 mm)	*	9	7	18	38	29	Zir, ap, sph, all	Slight: ser, clays, musc, ep. Some bio to chl and clay				Mafics commonly in clusters	
71AFr201	D-5	3-E	----Do----	Porphyritic	K-spar, hbl, qtz + plag phenos medium- to coarse-grained. Groundmass medium	*	10	8	19 Poikilitic	39 An 15	25	Sph, zir, ap, ep, all, rutille(?)	Slight: ser, chl rutille(?)	X	X			
70AFr2464a	C-5	3-E	Granite	Allotriomorphic-granular, moderate cataclasis	Medium	(10)	0	(30)	(20)	(40)	Zir	Slight: sph, chl					Biotite fine grained and interstitial.	
70AFr459	C-5	3-E	--Do--	Hypidiomorphic-granular	--do--	*	7	2	23	38	30	Zir, ap, op	Moderate: ser, chl					Weak lineation.
70AFr458	C-5	3-E	Granodiorite	Porphyritic	--do--	*	12	<1	17	43	27	----do----	Slight: ser, chl					
70AFr461	C-5	3-E	----Do----	Slightly porphyritic	Medium, K-spar phenos 10x3 mm	*	9	2	19	37	32	Zir, ap, op, musc	Moderate to strong: ser and clays. Carb, musc about 50% bio to chl	X				
70AFr466	C-5	3-E	----Do----	Hypidiomorphic-granular	Medium	*	8	<1	20	41	31	Musc, topaz, zir, (haloes in bio)	Slight: minor chl					
70AFr2460a	C-5	3-E	----Do----	Slightly porphyritic	K-spar + qtz to 3x8 mm; groundmass medium	*	11	0	20	38	29	Musc, ap, zir, (haloes in bio), op	Moderate: minor chl					
70AFr2455	C-5	3-E	----Do----	Porphyritic	K-spar 3x4 mm, plag 1x3 mm, fine-grained groundmass	*	8	0	20	38	34	Sph, ap, zir, minor op	Slight: ser, minor chl, musc					
70AFr3112	C-5	3-E	Granite	Hypidiomorphic-granular	Fine	*	5	tr	34	34	25	Zir, ap, all, op	Slight: ser, musc, carb, small amount bio to chl	X	X			Weak lineation.
70AFr301	C-5	3-E	--Do--	Porphyritic	K-spar 3x4 mm, plag 1x3 mm, fine-grained groundmass	*	1	tr	32	29	38						No thin section.	
70AFr305	C-5	3-E	--Do--	----do----	Phenos 3x7 mm, medium groundmass	*	5	0	27	35	33	Zir, (haloes in bio), op, topaz, tour, (rutile?)	Moderate: ser, bio to chl, minor carb, musc	X				Faint lineation. Spec refers to 70AFr305 and 70AFr305a.
70AFr2467	C-5	3-E	--Do--	Poikilitic	K-spar to 6x10 mm, qtz to 5x>3 mm, medium groundmass	△	6	1	34	31	28	Zir, (bio haloes), tour, ap, op	Moderate: ser, small amount bio to chl					
70AFr450	D-6	3-F	Granodiorite	Hypidiomorphic-granular (slightly porphyritic)	Medium	*	14	9	7	48	22	Sph, zir, ap, minor op, topaz(?)	Slight: minor chl					
70AFr437A	D-6	3-F	Quartz monzonite	Hypidiomorphic-granular (porphyritic)	--do--	*	10	6	18 Microcline poikilitic small and myrmekite	35	31	Ap, zir, minor op	Moderate: ser, little chl, carb (from hbl)	X	X			Spec refers to 70AFr437a and 70AFr437b.

\* Modal analysis determined from point count on stained slab--generally 1,000 points.

△ Modal analysis determined from point count on stained thin section (1,000 points).

() Modal analysis estimated from thin section.